NEUROSCIENCE LETTERS

Vol. 144 Nos. 1,2 **CONTENTS** **SEPTEMBER 14th, 1992**

(Cited in Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus, PASCAL M and Science Citation Index)

Announcement from the Publisher v

Letter to the Editor: Maintenance of the axoplasm: can neurones accord with the accepted notions?
J. Alvarez (Chile) 1

A-current in rat globus pallidus: a whole-cell voltage clamp study on acutely dissociated neurons
A. Stefani, P. Calabresi, N.B. Mercuri and G. Bernardi (Italy) 4

Localization of mRNA for β-adrenergic receptor kinase in the brain of adult rats
Y. Owada, M. Watanabe and H. Kondo (Japan) 9

The influence of basic fibroblast growth factor on acetylcholine receptors in cultured muscle cells
Z. Dai and H.B. Peng (USA) 14

Mapping of c-*fos* expression elicited by pure tones stimulation in the auditory pathways of the rat, with emphasis on the cochlear nucleus
E.M. Rouiller, X.S.T. Wan, V. Moret and F. Liang (Switzerland, China) 19

IGF-II mRNA expression in LI human glioblastoma cell line parallels cell growth
G. Melino, A. Stephanou, M. Annicchiarico-Petruzzelli, A. Finazzi-Agró, R.A. Knight and S.L. Lightman (Italy, UK) 25

Sexual differences and seasonal variations in vasoactive intestinal peptide immunoreactivity in the suprachiasmatic nucleus of jerboa (*Jaculus orientalis*)
N. Lakhdar-Ghazal, A. Kalsbeek and P. Pevet (Morocco, France) 29

Autoradiographic analysis of cyclic adenosine monophosphate phosphodiesterase using [^{3}H]rolipram in the postischemic rat brain
H. Nagasawa, T. Araki and K. Kogure (Japan) 34

Characterization of amyloid fibril protein from a case of cerebral amyloid angiopathy showing immunohistochemical reactivity for both β protein and cystatin C
K. Maruyama, F. Kametani, S.-i. Ikeda, T. Ishihara and N. Yanagisawa (Japan) 38

Secretory pathway of β/A4 amyloid protein precursor in familial Alzheimer's disease with Val_{717} to Ile mutation
K. Yanagisawa, Y. Ihara and T. Miyatake (Japan) 43

A novel but non-pathogenic mutation in exon 4 of the human amyloid precursor protein (APP) gene
G. Vaula, M. Mortilla, R. Tupler, W. Lukiw, R. Tanzi, L. Nee, R. Polinsky, J.-F. Foncin, A.C. Bruni, M.P. Montesi, S. Sorbi and P.S. George-Hyslop (Canada, USA, France, Italy) 46

Local infusion of interleukin-6 attenuates the neurotoxic effects of NMDA on rat striatal cholinergic neurons
S. Toulmond, X. Vige, D. Fage and J. Benavides (France) 49

Mapping of $GABA_A$ receptor α5 and α6 subunit-like immunoreactivity in rat brain
C.L. Thompson, G. Bodewitz, F.A. Stephenson and J.D. Turner (UK, FRG) 53

Development of speed of repetitive movements in children is determined by structural changes in corticospinal efferents
K. Müller and V. Hömberg (FRG) 57

Thyrotropin-releasing hormone analogue and serotonin interact within the dorsal vagal complex to augment gastric acid secretion
D.M. McTigue, R.C. Rogers and R.L. Stephens Jr. (USA) 61

Are Ca^{2+}-permeable kainate/AMPA receptors more abundant in immature brain?
D.E. Pellegrini-Giampietro, M.V.L. Bennett and R.S. Zukin (USA) 65

Expression of c-fos protein in the medulla oblongata of conscious rabbits in response to baroreceptor activation
Y.-W. Li and R.A.L. Dampney (Australia) 70

Calcium/calmodulin dependent protein kinase II mRNA in the gerbil brain after cerebral ischemia
D.M. Hiestand and M.S. Kindy (USA) 75

The long-acting cholinesterase inhibitor heptyl-physostigmine attenuates the scopolamine-induced learning impairment of rats in a 14-unit T-maze
S. Iijima, N.H. Greig, P. Garofalo, E.L. Spangler, B. Heller, A. Brossi and D.K. Ingram (USA) 79

Normal serotonin but elevated 5-hydroxyindoleacetic concentration in cerebellar cortex of patients with dominantly-inherited olivopontocerebellar atrophy
S.J. Kish, Y. Robitaille, L. Schut, M. El-Awar, M.J. Ball and K. Shannak (Canada, USA) 84

L-Aspartate-β-hydroxamate exhibits mixed agonist/antagonist activity at the glutamate metabotropic receptor in rat neonatal cerebrocortial slices
R.H.P. Porter, R.S.J. Briggs and P.J. Roberts (UK) 87

Contents continued on p. 240

This journal is printed on acid-free paper.

NEUROSCIENCE LETTERS

Vol. 144 Nos. 1,2 **CONTENTS** **SEPTEMBER 14th, 1992**

(Cited in Biological Abstracts (BIOSIS), Chemical Abstracts, Current Contents/Life Sciences, Excerpta Medica (EMBASE), Index Medicus, PASCAL M and Science Citation Index)

Announcement from the Publisher v

Letter to the Editor: Maintenance of the axoplasm: can neurones accord with the accepted notions?
J. Alvarez (Chile) 1

A-current in rat globus pallidus: a whole-cell voltage clamp study on acutely dissociated neurons
A. Stefani, P. Calabresi, N.B. Mercuri and G. Bernardi (Italy) 4

Localization of mRNA for β-adrenergic receptor kinase in the brain of adult rats
Y. Owada, M. Watanabe and H. Kondo (Japan) 9

The influence of basic fibroblast growth factor on acetylcholine receptors in cultured muscle cells
Z. Dai and H.B. Peng (USA) 14

Mapping of c-*fos* expression elicited by pure tones stimulation in the auditory pathways of the rat, with emphasis on the cochlear nucleus
E.M. Rouiller, X.S.T. Wan, V. Moret and F. Liang (Switzerland, China) 19

IGF-II mRNA expression in LI human glioblastoma cell line parallels cell growth
G. Melino, A. Stephanou, M. Annicchiarico-Petruzzelli, A. Finazzi-Agró, R.A. Knight and S.L. Lightman (Italy, UK) 25

Sexual differences and seasonal variations in vasoactive intestinal peptide immunoreactivity in the suprachiasmatic nucleus of jerboa (*Jaculus orientalis*)
N. Lakhdar-Ghazal, A. Kalsbeek and P. Pevet (Morocco, France) 29

Autoradiographic analysis of cyclic adenosine monophosphate phosphodiesterase using [^{3}H]rolipram in the postischemic rat brain
H. Nagasawa, T. Araki and K. Kogure (Japan) 34

Characterization of amyloid fibril protein from a case of cerebral amyloid angiopathy showing immunohistochemical reactivity for both β protein and cystatin C
K. Maruyama, F. Kametani, S.-i. Ikeda, T. Ishihara and N. Yanagisawa (Japan) 38

Secretory pathway of β/A4 amyloid protein precursor in familial Alzheimer's disease with Val_{717} to Ile mutation
K. Yanagisawa, Y. Ihara and T. Miyatake (Japan) 43

A novel but non-pathogenic mutation in exon 4 of the human amyloid precursor protein (APP) gene
G. Vaula, M. Mortilla, R. Tupler, W. Lukiw, R. Tanzi, L. Nee, R. Polinsky, J.-F. Foncin, A.C. Bruni, M.P. Montesi, S. Sorbi and P.S. George-Hyslop (Canada, USA, France, Italy) 46

Local infusion of interleukin-6 attenuates the neurotoxic effects of NMDA on rat striatal cholinergic neurons
S. Toulmond, X. Vige, D. Fage and J. Benavides (France) 49

Mapping of $GABA_A$ receptor α5 and α6 subunit-like immunoreactivity in rat brain
C.L. Thompson, G. Bodewitz, F.A. Stephenson and J.D. Turner (UK, FRG) 53

Development of speed of repetitive movements in children is determined by structural changes in corticospinal efferents
K. Müller and V. Hömberg (FRG) 57

Thyrotropin-releasing hormone analogue and serotonin interact within the dorsal vagal complex to augment gastric acid secretion
D.M. McTigue, R.C. Rogers and R.L. Stephens Jr. (USA) 61

Are Ca^{2+}-permeable kainate/AMPA receptors more abundant in immature brain?
D.E. Pellegrini-Giampietro, M.V.L. Bennett and R.S. Zukin (USA) 65

Expression of c-fos protein in the medulla oblongata of conscious rabbits in response to baroreceptor activation
Y.-W. Li and R.A.L. Dampney (Australia) 70

Calcium/calmodulin dependent protein kinase II mRNA in the gerbil brain after cerebral ischemia
D.M. Hiestand and M.S. Kindy (USA) 75

The long-acting cholinesterase inhibitor heptyl-physostigmine attenuates the scopolamine-induced learning impairment of rats in a 14-unit T-maze
S. Iijima, N.H. Greig, P. Garofalo, E.L. Spangler, B. Heller, A. Brossi and D.K. Ingram (USA) 79

Normal serotonin but elevated 5-hydroxyindoleacetic concentration in cerebellar cortex of patients with dominantly-inherited olivopontocerebellar atrophy
S.J. Kish, Y. Robitaille, L. Schut, M. El-Awar, M.J. Ball and K. Shannak (Canada, USA) 84

L-Aspartate-β-hydroxamate exhibits mixed agonist/antagonist activity at the glutamate metabotropic receptor in rat neonatal cerebrocortial slices
R.H.P. Porter, R.S.J. Briggs and P.J. Roberts (UK) 87

Contents continued on p. 240

This journal is printed on acid-free paper.

CONTENTS *(continued from the back cover)*

Neuronal responses of the anterior commissural nucleus to osmotic stimulation and angiotensin II in hypothalamic slices in the rat
Z.-S. Han, X.-Q. Duan and G. Ju (People's Republic of China) 90
Tetanus toxin alters 5-hydroxytryptamine, dopamine, and their metabolites in rat hippocampus measured by in vivo microdialysis
P.S. Whitton, P. Britton and N.G. Bowery (UK) 95
Non-independent quantum bumps in *Limulus* ventral nerve photoreceptors – a new insight in the light transduction mechanism
K. Nagy (FRG) 99
Allopurinol preserves cerebral energy metabolism during perinatal hypoxia-ischemia: a ^{31}P NMR study in unanesthetized immature rats
G.D. Williams, C. Palmer, D.F. Heitjan and M.B. Smith (USA) 103
Metallothionein immunoreactivity is increased in the spinal cord of patients with amyotrophic lateral sclerosis
P.A.E.S. Smitt, H.G.T. Blaauwgeers, D. Troost and J.M.B.V. de Jong (Netherlands) 107
The polyamine diaminodecane (DA-10) produces a voltage-dependent flickery block of single NMDA receptor channels
D.M. Rock and R.L. Macdonald (USA) 111
Comparison of spontaneous motor pattern generation in non-hemisected and hemisected mouse spinal cord
Y. Tao and M.H. Droge (USA) 116
Insulin protects brain tissue against focal ischemia in rats
Y. Izumi, E. Pinard, S. Roussel and J. Seylaz (France) 121
Retinal ischemia induced by occlusion of both common carotid arteries in rats as demonstrated by electroretinography
F. Block, M. Schwarz and K.-H. Sontag (FRG) 124
Acetylcholine synthesis is modulated by acetylcholine content of cytosolic fraction but not by that of releasable fraction
T. Suzuki, Y. Kashima, K. Fujimoto and K. Kawashima (Japan) 127
Axonal sprouting induced in the sciatic nerve by the amyloid precursor protein (APP) and other antiproteases
J. Alvarez, R.D. Moreno, O. Llanos, N.C. Inestrosa, E. Brandan, T. Colby and F.S. Esch (Chile, USA) 130
A neurophysiological study of a lithium-sensitive phosphoinositide system in the hamster suprachiasmatic (SCN) biological clock in vitro
R. Mason and S.M. Biello (UK) 135
Bradykinin receptors in cultured astrocytes from neonatal rat brain are linked to physiological responses
G. Gimpl, W. Walz, C. Ohlemeyer and H. Kettenmann (FRG, Canada) 139
Presence of abnormally phosphorylated Tau proteins in the entorhinal cortex of aged non-demented subjects
P. Vermersch, B. Frigard, J.-P. David, C. Fallet-Bianco and A. Delacourte (France) 143
Localization of melatonin binding sites in the pars tuberalis of the mink at three times during the seasonal testicular cycle
L. Boissin-Agasse, C. Barberis, S. Audigier, G. Roch and J. Boissin (France) 147
Denervation of dopaminergic neurons with 6-hydroxydopamine increases nerve growth factor content in rat brain
A. Nitta, Y. Furukawa, K. Hayashi, M. Hiramatsu, T. Kameyama, T. Hasegawa and T. Nabeshima (Japan) 152
Low calcium/high magnesium medium increases activities of hypothalamic arcuate and suprachiasmatic neurons in brain tissue slices
J.-T. Pan, C.-S. Li, K.-C. Tang and J.-Y. Lin (Taiwan) 157
Calcium channels in embryonic chick skeletal muscle cells after cultivation with calcium channel blocker
M. Kano, R. Satoh and Y. Nakabayashi (Japan) 161
Selective potentiation of GABA-mediated Cl^- current by lanthanum ion in subtypes of cloned $GABA_A$ receptors
M.S. Im, B.J. Hamilton, D.B. Carter and W.B. Im (USA) 165
The type III calcium/calmodulin-sensitive adenylyl cyclase is not specific to olfactory sensory neurons
Z. Xia, E.-J. Choi, F. Wang and D.R. Storm (USA) 169
Local radiolabeling of the 68 kDa neurofilament protein in rat sciatic nerves
J.R. Sotelo, C.R. Benech and A. Kun (Uruguay) 174
Delayed degeneration of the optic tract and neurons in the superior colliculus after forebrain ischemia
F. Gallyas, M. Hsu and G. Buzsaki (USA) 177
Modulation of AMPA and NMDA responses in rat spinal dorsal horn neurons by *trans*-1-aminocyclopentane-1,3-dicarboxylic acid
R. Cerne and M. Randic (USA) 180
Tedisamil blocks a calcium-dependent potassium channel in cultured motoneurons
J.G. McLarnon, D. Sawyer, M. Michikawa and S.U. Kim (Canada) 185
GABAergic afferents modulate proenkephalin mRNA expression in the guinea pig hypothalamic magnocellular dorsal nucleus
V. Mitchell, J.C. Beauvillain and M. Mazzuca (France) 189

Sites of action of morphine on the ascending excitatory reflex in the guinea-pig small intestine
M. Tonini, S.A. Waterman, S.M. Candura, T. Coccini and M. Costa (Italy, Australia) 195
Increased brain concentrations of a neurotoxin, 3-hydroxykynurenine, in Huntington's disease
S.J. Pearson and G.P. Reynolds (UK) 199
Patterns of termination of cerebellar and basal ganglia efferents in the rat thalamus. Strictly segregated and partly overlapping projections
J.M. Deniau, H. Kita and S.T. Kitai (USA, France) 202
Histamine stimulates exocytosis in a sub-population of bovine adrenal chromaffin cells
N. Pender and R.D. Burgoyne (UK) 207
Adenosine inhibits action potential-dependent release of calcitonin gene- related peptide-and substance P-like immunoreactivities from primary afferents in rat spinal cord
P. Santicioli, E. Del Bianco, M. Tramontana and C.A. Maggi (Italy) 211
D_2 dopamine receptor localization on striatonigral neurons
M.A. Ariano, C.J. Stromski, E.M. Smyk-Randall and D.R. Sibley (USA) 215
Cell adhesion molecule L1 guides cell migration in primary reaggregation cultures of mouse cerebellar cells
H. Asou, M. Miura, M. Kobayashi, K. Uyemura and K. Itoh (Japan, USA) 221
Inhibition by locus coeruleus on the baroreceptor reflex response in the rat
J.Y.H. Chan, S.-F. Jang and S.H.H. Chan (Taiwan) 225
Expression of the mRNA for the rat NMDA receptor (NMDAR1) in the sensory and autonomic ganglion neurons
R. Shigemoto, H. Ohishi, S. Nakanishi and N. Mizuno (Japan) 229
Glutathione prevents 2,4,5-trihydroxyphenylalanine excitotoxicity by maintaining it in a reduced, non-active form
E. Aizenman, F.A. Boeckman and P.A. Rosenberg (USA) 233

Author Index 237